Michigan Department of Transportation
5100B (07/07)

CHECKLIST TO DESIGNATE AREAS OF EVALUATION FOR REQUESTS FOR PROPOSAL (RFP)

Exhibit B

MDOT PROJECT MANAGER	JOB NUMBER (JN)	CONTROL SECTION (CS)
Robert Leppala	84130C	33084

DESCRIPTION IF NO JN/CS

MDOT PROJECT MANAGER: Check all items to be included in RFP. WHITE = REQUIRED GRAY SHADING = OPTIONAL Check the appropriate Tier in the box below			**CONSULTANT:** Provide only checked items below in proposal.
☐ **TIER I ($25,000-$99,999)**	☐ **TIER II ($100,000-$250,000)**	☒ **TIER III (>$250,000)**	
☐	☐	☒	Understanding of Service
☐	☐	☐	*Innovations*
☐	☐	☐	*Safety Program*
N/A	☐	☒	Organization Chart
☐	☐	☒	Qualifications of Team
☐	☐	☒	Past Performance
Not required as part of official RFP	Not required as part of official RFP	☐	Quality Assurance/Quality Control
☐	☐	☒	**Location:** The percentage of work performed in Michigan will be used for all selections unless the project is for on-site inspection or survey activities, then location should be scored using the distance from the consultant office to the on-site inspection or survey activity.
N/A	N/A	☐	Presentation
N/A	N/A	☐	Technical Proposal (if Presentation is required)
3 pages (MDOT forms not counted) **(No Resumes)**	7 pages (MDOT forms not counted)	19 pages (MDOT forms not counted)	Total maximum pages for RFP **not including key personnel resumes**

REQUEST FOR PROPOSAL

The Michigan Department of Transportation (MDOT) is seeking professional services for the project contained in the attached scope of services.

If your firm is interested in providing services, please indicate your interest by submitting a Proposal, Proposal/Bid Sheet or Bid Sheet as indicated below. The documents must be submitted in accordance with the latest "Consultant/Vendor Selection Guidelines for Service Contracts" and "Guideline for Completing a Low Bid Sheet(s)", if a low bid is involved as part of the selection process. **Referenced Guidelines are available on MDOT's website under Doing Business > Vendor/Consultant Services >Vendor/Consultant Selections.**

RFP SPECIFIC INFORMATION

☑ BUREAU OF HIGHWAYS ☐ BUREAU OF TRANSPORTATION PLANNING ** ☐ OTHER

THE SERVICE WAS POSTED ON THE ANTICIPATED QUARTERLY REQUESTS FOR PROPOSALS

☐ NO ☑ YES DATED 7/1/07 THROUGH 9/30/07

☑ **Prequalifed Services** – See page 2 of the attached Scope of Services for required Prequalification Classifications.

☐ **Non-Prequalifed Services** - If selected, the vendor must make sure that current financial information, including labor rates, overhead computations, and financial statements, if overhead is not audited, is on file with MDOT's Office of Commission Audits. This information must be on file for the prime vendor and all sub vendors so that the contract will not be delayed.

☑ **Qualifications Based Selection** – Use Consultant/Vendor Selection Guidelines

For all Qualifications Based Selections, the selection team will review the information submitted and will select the firm considered most qualified to perform the services based on the proposals. The selected vendor will be contacted to confirm capacity. Upon confirmation, that firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

** **For RFP's that originate in Bureau of Transportation Planning only**, a price proposal must be submitted at the same time as, but separate from, the proposal. Submit directly to the Contract Administrator/Selection Specialist, Bureau of Transportation Planning **(see address list, page 2)**. The price proposal must be submitted in a sealed manila envelope, clearly marked in large red letters **"PRICE PROPOSAL – TO BE OPENED ONLY BY SELECTION SPECIALIST."** The vendor's name and return address MUST be on the front of the envelope. The price proposal will only be opened for the highest scoring proposal. Unopened price proposals will be returned to the unselected vendor(s). Failure to comply with this procedure may result in your bid being opened erroneously by the mail room.

For a cost plus fixed fee contract, the selected vendor must have a cost accounting system to support a cost plus fixed fee contract. This type of system has a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the vendor's job-order accounting system.

☐ **Qualifications Review / Low Bid** - Use Consultant/Vendor Selection Guidelines. See Bid Sheet Instructions for additional information.

For Qualification Review/Low Bid selections, the selection team will review the proposals submitted and post the date of the bid opening on the MDOT website. The notification will be posted at least two business days prior to the bid opening. Only bids from vendors that meet proposal requirements will be opened. The vendor with the lowest bid will be selected. The selected vendor may be contacted to confirm capacity.

☐ **Best Value** - Use Consultant/Vendor Selection Guidelines. See Bid Sheet Instructions below for additional information. The bid amount is a component of the total proposal score, not the determining factor of the selection.

☐ **Low Bid** (no qualifications review required - no proposal required.) See Bid Sheet Instructions below for additional instructions.

BID SHEET INSTRUCTIONS

A bid sheet(s) must be submitted in accordance with the "Guideline for Completing a Low Bid Sheet(s)" (available on MDOT's website). The Bid Sheet is located at the end of the Scope of Services. Submit bid sheet(s) separate from the proposal, to the address indicated below. The bid sheet(s) must be submitted in a sealed manila envelope, clearly marked **"SEALED BID."** The vendor's name and return address MUST be on the front of the envelope. Failure to comply with this procedure may result in your bid being opened erroneously by the mail room and the bid being rejected from consideration.

PROPOSAL SUBMITTAL INFORMATION

REQUIRED NUMBER OF COPIES FOR PROJECT MANAGER	PROPOSAL DUE DATE	TIME DUE
3	12/26/07	4:00 pm

PROPOSAL AND BID SHEET MAILING ADDRESSES

Mail the multiple proposal bundle to the MDOT Project Manager or Other indicated below.

☑ MDOT Project Manager ☐ MDOT Other

Robert Leppala
MDOT - Lansing Transportation Service Center
3101 Technology Blvd, Suite H
Lansing, Michigan 48910

Mail one additional stapled copy of the proposal to the Lansing Office indicated below.

	Lansing Regular Mail	OR	Lansing Overnight Mail
☑	Secretary, Contract Services Div - B470 Michigan Department of Transportation PO Box 30050 Lansing, MI 48809		Secretary, Contract Services Div - B470 Michigan Department of Transportation 425 W. Ottawa Lansing, MI 48833
☐	Contract Administrator/Selection Specialist Bureau of Transportation Planning B470 Michigan Department of Transportation PO Box 30050 Lansing, MI 48809		Contract Administrator/Selection Specialist Bureau of Transportation Planning B470 Michigan Department of Transportation 425 W. Ottawa Lansing, MI 48833

GENERAL INFORMATION

Any questions relative to the scope of services must be submitted by e-mail to the MDOT Project Manager. Questions must be received by the Project Manager at least four (4) working days prior to the due date and time specified above. All questions and answers will be placed on the MDOT website as soon as possible after receipt of the questions, and at least three (3) days prior to the RFP due date deadline. The names of vendors submitting questions will not be disclosed.

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal

MDOT FORMS REQUIRED AS PART OF PROPOSAL SUBMISSION

5100D – Request for Proposal Cover Sheet
5100G – Certification of Availability of Key Personnel
5100I – Conflict of Interest Statement

(These forms are not included in the proposal maximum page count.)

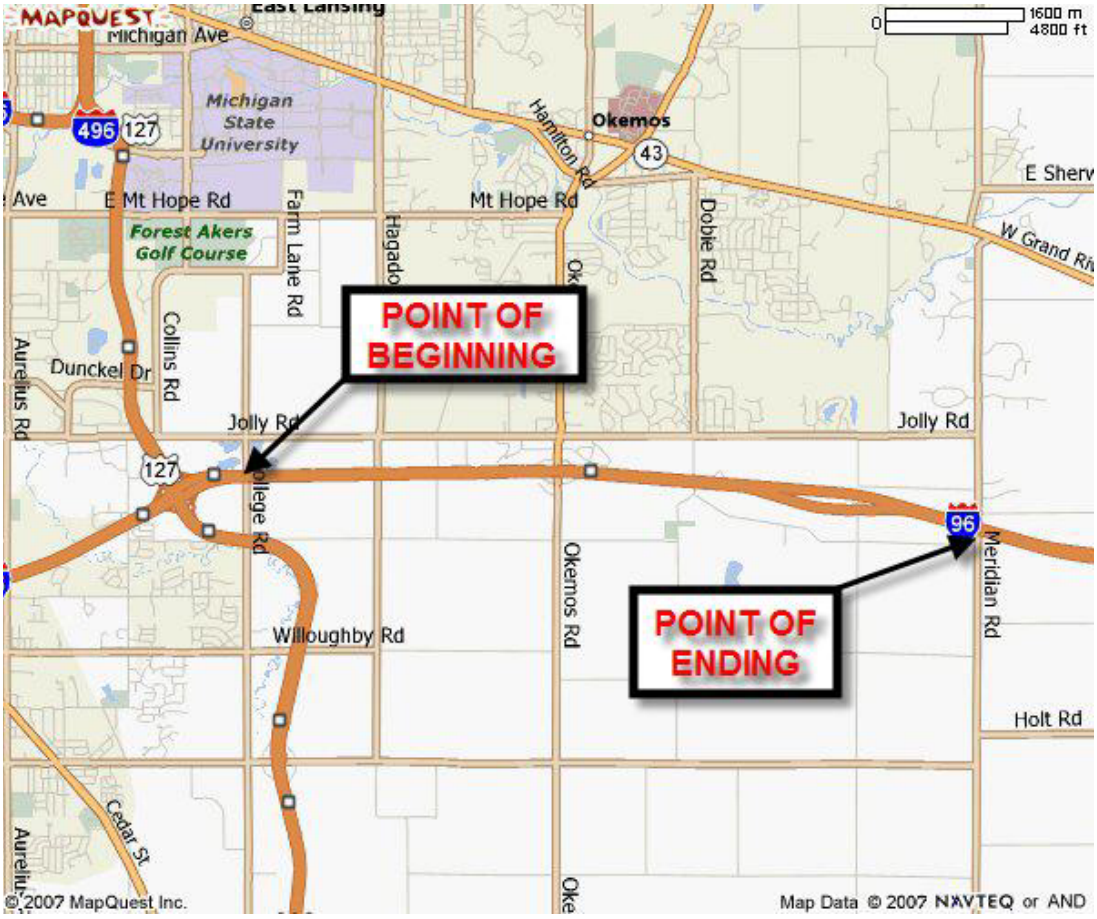
Michigan Department of Transportation

SCOPE OF SERVICE
FOR
DESIGN SERVICES

CONTROL SECTION: 33084

JOB NUMBER: 84130C

PROJECT LOCATION:
The project is located on I-96 from College Road to Meridian Road in Alaiedon Township, Ingham County. The project length is 6.2 miles.



PROJECT DESCRIPTION:
The work involved in the design of this project consists of developing base plans and maintaining traffic plans and provisions. The scope of construction work for this project is freeway pavement reconstruction, reconstruction of the 4 original interchange ramps at Okemos Road., rehabilitation of the 2 newer ramps at Okemos Road and reconstruction and upgrading of the Okemos rest area ramps and parking areas.

ANTICIPATED SERVICE START DATE: 03/21/2008

ANTICIPATED SERVICE COMPLETION DATE: 11/09/2009

PRIMARY PREQUALIFICATION CLASSIFICATION(S):
Roadway Rehabilitation & Rural Freeways
Maintaining Traffic Plans & Provisions

SECONDARY PREQUALIFICATION CLASSIFICATION(S):
Traffic Capacity Analysis and Geometric Studies
Geotechnical Engineering Services

DBE REQUIREMENT: N/A

MDOT PROJECT MANAGER:

Name	Robert Leppala – Cost and Scheduling Engineer
Address	Michigan Department of Transportation
	Lansing Transportation Service Center
	3101 Technology Blvd., Suite H
	Lansing, MI 48910
Phone Number	(517) 324-2273
Fax Number	(517) 324-0294
E-mail	leppalar@michigan.gov

CONSTRUCTION COST:

A. The estimated cost of construction is:

1.	**Mainline Pavement**	**$12,557,581**
2.	**Geometric Improvement**	**$0**
3.	**Environmental**	**$0**
4.	**Drainage**	**$915,253**
5.	**Safety**	**$167,716**
6.	**Non Motorized**	**$0**
7.	**Maintaining Traffic**	**$2,941,866**
8.	**Permanent Pavement Markings/Signs/Signals**	**$201,296**
9.	**Miscellaneous**	**$5,830,915**
	CONSTRUCTION TOTAL	**$22,614,627**

B. The estimated cost of real estate is: $0

The above construction total is the amount of funding programmed for this project. The Consultant is expected to design the project within the programmed amount.

REQUIRED MDOT GUIDELINES AND STANDARDS:

Work shall conform to current MDOT, FHWA, and AASHTO practices, guidelines, policies, and standards (i.e., Road Design Manual, Standard Plans, Drainage Manual, Roadside Design Guide, A Policy on Geometric Design of Highways and Streets, Michigan Manual of Uniform Traffic Control Devices, etc.).

NOTE: A process change mandated by federal audit of MDOT's design process puts the Omissions and Errors Check Meeting after the Plan Completion. Please keep this in mind when preparing your schedule. See MDOT Road Design Manual, Chapter 14 – Procedures – Section 14.54 for corroboration. See "For Your Information" contacts at the end of this document for more info or questions.

Consultant is required to use MDOT's current version of Bentley MicroStation for CADD applications and Bentley GEOPAK for road design. Consultant shall comply with all MDOT CADD standards and file naming conventions.

CONSULTANT RESPONSIBILITIES:

Complete the design of this project including, but not limited to the following:

The Consultant must adhere to all applicable OSHA and MIOSHA safety standards, including the appropriate traffic signs for the activities and conditions for this job and perform field operations in accordance with the Department's Personal Protective Equipment (PPE) policy as stated in the MDOT Guidance Document #10118.

Meet with the MDOT Project Manager to review project, location of data sources and contact persons, and review relevant MDOT operations. The Consultant shall review and clarify project issues, data needs and availability, and the sequence of events and team meetings that are essential to complete the design by the project plan completion date. Attention shall be given to critical target dates that may require a large lead time, such as geotechnical requirements, ROW submittal dates, Railroad coordination requirements, utility conflict resolution, local agency meetings, etc.

A. Prepare required plans, typical cross-sections, details, and specifications required for base plans.

B. Prepare preliminary and final staging plans, special provisions, pay items, quantities and estimates for maintaining traffic during construction. Two lanes of traffic in each direction shall be maintained during mainline reconstruction.

C. This project has been identified as significant in relation to potential mobility impacts. Evaluate for potential mobility impacts per MDOT Work Zone Safety and Mobility Policy (see Attachment A) and develop the Transportation management plan (TMP), including Temporary

Traffic Control Plan, Transportation Operations Plan, and Public Information Plan as required.

D. As part of the development of base plans, prepare a feasibility study, including geometric alternatives and cost estimates, for operational improvements of auxiliary lanes between US-127 and Okemos Road interchanges.

E. Perform pavement coring, soil boring and roadway geotechnical investigation that will be needed to develop maintaining traffic plans and quantities. Also perform the analysis of this data.

F. Provide solutions to any unique problems that may arise during the design of this project.

G. The Consultant may be required to provide Design Services during the construction phase of this project. If Construction Assistance is required, then a separate authorization for those services will be issued.

H. Maintain a Design Project Record which includes a history of significant events (changes, comments, etc.) which influenced the development of the plans, dates of submittals and receipt of information.

I. The Consultant representative shall record and submit type-written minutes for all project related meetings to the MDOT Project Manager within two weeks of the meeting. The Consultant shall also distribute the minutes to all meeting attendees. MDOT will provide and distribute official meeting minutes for the Plan Review Meeting.

J. Attend any project-related meetings as directed by the MDOT Project Manager.

K. Attend information meetings (i.e., public hearings, open houses, etc.) with the public and public officials to assist in responding to concerns and questions. May require the preparation of displays such as maps, marked-up plans, etc.

L. The MDOT Project Manager shall be the official MDOT contact person for the Consultant **and shall be made aware of all communications regarding this project**. The Consultant must either address or send a copy of all correspondence to the MDOT Project Manager. This includes all Subcontractor correspondence and verbal contact records.

M. The Consultant shall contact the MDOT Project Manager whenever discoveries or design alternatives have the potential to require changes in the scope, limits, quantities, costs, or right-of-way of the project.

UTILITIES

The Consultant shall be responsible for showing on the base plans the location and names of all existing utilities within the limits of the project. The MDOT Utility Permits Engineer and/or Project Manager will coordinate the requests for existing utility information.

TRAFFIC CONTROL

The Consultant shall be responsible for all traffic control required to perform the tasks as outlined in this Scope of Design Services.

MDOT PERMITS

The Consultant shall be responsible for obtaining up to date access permits and pertinent information for tasks in MDOT Right of Way (ROW). This information can be obtained through Joe Rios, Utilities/Permits Section, Real Estate Division at (517) 241-2103.

MONTHLY PROGRESS REPORT

On the first of each month, the Consultant Project Manager shall submit a monthly project progress report to the Project Manager.

MDOT RESPONSIBILITIES:

A. Schedule and/or conduct the following:
    1. Project related meetings.
    2. The Base Plan Review, The Plan Review and The OEC Meeting.
    3. Packaging of plans and proposal.

B. Furnish Special Details and pertinent reference materials.

C. Furnish design survey portfolio and survey files. The design survey consists of full aerial topographic survey with digital terrain model merged with supplemental ground survey. Roadway and ramp alignments were not developed as part of the design survey and will not be provided.

D. Furnish prints of an example of a similar project and old plans of the area, if available.

E. Furnish Right-of-Way maps of the project area.

F. Furnish conceptual layout for Okemos rest area ramps and parking areas.

G. Supply information on the existing pavement structure.

H. Coordinate requests for utility information.

DELIVERABLES:

The Consultant shall deliver all computer files associated with the project in their native format (spreadsheets, CADD files, GEOPAK files, etc.) on DVD, CD or uploaded to ProjectWise, as directed by the MDOT Project Manager. All CADD/GEOPAK files shall be created and identified with standard MDOT file names as shown in Appendix A of the Road Design Manual. It is the Consultant's responsibility to obtain up to date MicroStation and GEOPAK seed/configuration files necessary to comply with MDOT's CADD standards which are posted to the bulletin board system. When the use of GEOPAK road design software is necessary to develop plans all pay items shall be placed into the CADD file using GEOPAK's Design and Computation Manager so that Quantity Manager can be used to transfer pay item information to SAPW/Trns*port. Any CADD/GEOPAK files that do not conform to MDOT standards will be returned to the Consultant for correction at the Consultant's expense.

Proposal documents shall be submitted in their native format with standard naming conventions as well as combined into one Adobe PDF file in the sequence specified by MDOT. To provide text search capabilities the combined proposal shall be created by converting native electronic files to PDF. Scanning to PDF is discouraged except in instances where it is necessary to capturing a legally signed document or a hard copy version of a document is all that exists.

Plan files shall be submitted in their native dgn format with standard naming conventions as well as plotted into a combined Adobe PDF file. Plan sheets shall be plotted to Adobe PDF with full text search capabilities in 11" x 17" format. A title sheet shall be plotted, sealed, signed, and then scanned for inclusion with the Adobe PDF set. The original title sheet will be sent to the MDOT Project Manager.

Stand Alone Proposal Estimator's Worksheet (SAPW) shall be used to generate the txt and csv files necessary for import into the Trns*port bid letting software. The SAPW files shall be transmitted electronically by the method specified by the MDOT Project Manager.

The project removal, construction, and profile sheets will require a scale of **1"=100'.** Separate removal, construction, and profile sheets will be required for the entire mainline freeway, the Okemos Road interchange ramps and the rest area ramps, roadways and parking areas.

Other plan sheets that are required for this project shall be completed by the Consultant. These include, but are not limited to the following plan sheets:

A. The title sheet. MDOT will provide a map of the area on a disk in our workstation format. If the map is not available, MDOT will provide a map that could be used. The Consultant shall be responsible for any revisions to the title

sheet and the title sheet and map shall meet MDOT format and layout guidelines.

B. Typical cross section sheets

C. Note Sheet

D. Legend Sheet

E. Witness, benchmark and Control Point sheet(s).

F. Construction staging and traffic control plans.

G. Soil boring log sheet(s).

All plans, special provisions, estimates, and other project related items shall meet all MDOT requirements and detailing practices (i.e., format, materials, symbols, patterns, and layout) or as otherwise directed by the Project Manager. All plans, specifications, and other project related items are subject to review and approval by MDOT.

PROJECT SCHEDULE:

The Consultant shall use the following events to prepare the proposed implementation schedule as required in the Guidelines for the Preparation of Responses on Assigned Design Services Contracts. These dates shall be used in preparing the Consultant's Monthly Progress Reports.

MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

Please indicate with a check in the box next to each task number whether you believe that task will require consultant involvement on the job. Milestones (a specific event at a point in time) are italicized and underlined. See the P/PMS Task Manual for more details.

Study (Early Preliminary Engineering)

Yes	No	P/PMS Task Number and Description	Date To Be Completed By (mm/dd/yyyy)
		EPE Scoping Analysis	
☐	☒	2120 Prepare Traffic Analysis Report	/ /
☐	☒	2130 Prepare Project Justification	/ /
☐	☒	*213M Concurrence by Regulatory Agencies with the Purpose and Need*	/ /
☐	☒	2140 Develop and Review Illustrative Alternatives	/ /
☐	☒	2155 Request/Perform Safety Analysis	/ /
☐	☒	2160 Prepare and Review EIS Scoping Document	/ /
☐	☒	*211M Public Information Meeting*	/ /
		EPE Draft Analysis	
☐	☒	2310 Conduct Technical SEE Studies	/ /
☐	☒	2321 Prepare for Aerial Photography	/ /
☐	☒	2322 Finish/Print Aerial Photography	/ /
☐	☒	2330 Collect EPE Geotechnical Data	/ /
☐	☒	2340 Develop and Review Practical Alternatives	/ /
☐	☒	*233M Aerial Photography Flight*	/ /
☐	☒	*234M Concurrence by Regulatory Agencies with the Alternatives for Study*	/ /
☐	☒	2360 Prepare and Review EA or DEIS	/ /
☐	☒	*231M Draft Submission to FHWA*	/ /
☐	☒	2380 Circulate EA or DEIS	/ /
☐	☒	*232M Public Hearing*	/ /

MDOT PRECONSTRUCTION TASKS CONSULTANT CHECKLIST

Study (Early Preliminary Engineering)

Yes	No	P/PMS Task Number and Description	Date To Be Completed By (mm/dd/yyyy)
		EPE Final Analysis	
☐	☒	2510 Determine and Review Recommended Alternative	/ /
☐	☒	*250M Concurrence by Regulatory Agencies with Recommended Alternative*	/ /
☐	☒	2525 Prepare and Review Engineering Report	/ /
☐	☒	2530 Prepare and Review Request for FONSI or FEIS	/ /
☐	☒	*252M Final Submission to FHWA*	/ /
☐	☒	2550 Obtain FONSI or ROD	/ /
		Contamination Investigation	
☐	☒	2810 Project Area Contamination Survey (PCS)	/ /
☐	☒	2820 Preliminary Site Investigation (PSI) for Contamination	/ /

Preliminary Engineering

		Design Scope Verification and Base Plans Preparation	
☐	☐	3130 Verify Design Scope of Work and Cost	/ /
☐	☒	3310 Prepare Aerial Topographic Mapping / /	
☐	☒	3320 Conduct Photogrammetric Control Survey	/ /
☐	☒	3321 Set Aerial Photo Targets	/ /
☐	☒	3330 Conduct Design Survey	/ /
☐	☒	3340 Conduct Structure Survey	/ /
☐	☒	3350 Conduct Hydraulics Survey	/ /
☒	☐	3360 Prepare Base Plans	06/20/2008
☐	☒	*311M Utility Notification*	/ /
☐	☒	3361 Review and Submit Preliminary ROW Plans	/ /
☐	☒	*331M Preliminary ROW Plans Distributed*	/ /
☐	☒	3370 Prepare Structure Study	/ /
☐	☒	3375 Conduct Value Engineering Study	/ /
☒	☐	3380 Review Base Plans	07/29/2008
☒	☐	*332M Base Plan Review (Pre-GI Inspection)*	07/15/2008
☒	☐	3390 Develop the Maintaining Traffic Concepts	06/20/2008
		Preliminary Plans Preparation	
☒	☐	3510 Perform Roadway Geotechnical Investigation	06/20/2008
☐	☒	3520 Conduct Hydraulic/Hydrologic and Scour Analysis	/ /
☐	☒	3522 Conduct Drainage Study, Storm Sewer Design, and use Structural Best Management Practices	/ /
☐	☒	3530 Conduct Structure Foundation Investigation	/ /

Preliminary Engineering (cont'd)

Yes	No	P/PMS Task Number and Description	Date To Be Completed By (mm/dd/yyyy)
		Preliminary Plans Preparation (cont'd)	
☐	☒	3535 Conduct Structure Review for Architectural and Aesthetic Improvements	/ /
☒	☐	3540 Develop the Maintaining Traffic Plan	10/10/2008
☐	☒	3551 Develop Traffic Signal Operations Plan	/ /
☐	☒	3552 Develop Preliminary Pavement Marking Plan	/ /
☐	☒	3553 Develop Preliminary Non-Freeway Signing Plan	/ /
☐	☒	3554 Develop Preliminary Freeway Signing Plan	/ /
☐	☒	3570 Prepare Preliminary Structure Plans	/ /
☐	☒	3580 Develop Preliminary Plans	/ /
☐	☒	3581 Review and Submit Final ROW Plans	/ /
☐	☒	*351M Final ROW Plans Distributed*	/ /
☐	☒	3590 Review Preliminary Plans (Hold Plan Review Meeting)	/ /
☒	☐	*352M THE Plan Review (Grade Inspection)*	11/14/2008
		Utilities	
☒	☐	3610 Compile Utility Information	07/29/2008
☐	☒	3660 Resolve Utility Issues	/ /
☐	☒	*360M Utility Conflict Resolution Plan Distribution*	/ /
☐	☒	*361M Utility Meeting*	/ /
☐	☒	3670 Develop Municipal Utility Plans	/ /
☐	☒	3672 Develop Special Drainage Structures Plans	/ /
☐	☒	3675 Develop Electrical Plans	/ /
		Mitigation/Permits	
☐	☒	3710 Develop Required Mitigation	/ /
☐	☒	3720 Submit Environmental Permit Applications	/ /
☐	☒	3730 Obtain Environmental Permit	/ /

Preliminary Engineering (cont'd)

Yes	No	P/PMS Task Number and Description	Date To Be Completed By (mm/dd/yyyy)
		Final Plan Preparation	
☐	☒	3821 Prepare/Review Traffic Signal Plan	/ /
☐	☒	3822 Complete Permanent Pavement Marking Plan	/ /
☐	☒	3823 Complete Non-Freeway Signing Plan / /	
☐	☒	3824 Complete Freeway Signing Plan	/ /
☒	☐	3830 Complete the Maintaining Traffic Plan	03/16/2009
☐	☒	3840 Develop Final Plans and Specifications	/ /
☒	☐	*380M Plan Completion*	03/16/2009
☐	☒	3850 Develop Structure Final Plans and Specifications	/ /
☒	☐	3870 Hold Omissions/Errors Check (OEC) Meeting	04/30/2009/
☒	☐	*387M Omissions/Errors Checks Meeting*	04/17/2009
☐	☒	*389M Plan Turn-In*	/ /
☐	☒	3880 CPM Quality Assurance Review	/ /

Preliminary Engineering – Right Of Way

		Early Right Of Way Work	
☐	☒	4120 Obtain Preliminary Title Commitments	/ /
☐	☒	4130 Prepare Marked Final Right Of Way Plans	/ /
☐	☒	*413M Approved Marked Final ROW*	/ /
☐	☒	4140 Prepare Property Legal Instruments	/ /
		ROW Acquisition	
☐	☒	4411 Preliminary Interviews	/ /
☐	☒	*441M Post-Decision Meeting*	/ /
☐	☒	4412 Real Estate Services Assignment Proposal and Fee Estimate (Form 633s) for Appraisal Work Authorization	/ /
☐	☒	4413 Appraisal Reports	/ /
☐	☒	4420 Appraisal Review Reports	/ /
☐	☒	4430 Acquire Right Of Way Parcels	/ /
☐	☒	4510 Conduct Right Of Way Survey & Staking	/ /
		ROW Relocation	
☐	☒	4710 Relocation Assistance	/ /
☐	☒	4720 Prepare Improvement Removal Plan	/ /
☐	☒	*442M ROW Certification*	/ /

PAYMENT SCHEDULE

Compensation for this Scope of Services shall be on an **actual cost plus fixed fee** basis.

CONSULTANT PAYMENT:

All invoices/bills for services must be directed to the Department and follow the 'then current' guidelines. The latest copy of the "Professional Engineering Service Reimbursement Guidelines for Bureau of Highways" is available on MDOT's Bulletin Board System. This document contains instructions and forms that must be followed and used for invoicing/billing; payment may be delayed or decreased if the instructions are not followed.

Payment to the Consultant for Services rendered shall not exceed the "Actual Cost Plus Fixed Fee, Not to Exceed Maximum Amount" unless an increase is approved in accordance with the contract with the Consultant. All invoices/bills must be submitted within 14 calendar days of the last date of services being performed for that invoice.

Direct expenses will not be paid in excess of that allowed by the Department for its own employees in accordance with the State of Michigan's Standardized Travel Regulations. Supporting documentation must be submitted, with the invoice/bill, for all billable expenses on the Project. The only hours that will be considered allowable charges for this contract are those that are directly attributable to the activities of this Project.

The use of overtime hours is not acceptable unless prior written approval is granted by the MDOT Region Engineer/Bureau Director and the MDOT Project Engineer Manager. Reimbursement for overtime hours that are allowed will be limited to time spent on this project in excess of forty hours per person per week. Any variations to this rule should be included in the priced proposal submitted by the Consultant and must have prior written approval by the MDOT Region Engineer/Bureau Director and the MDOT Project Engineer Manager.

The fixed fee for profit allowed for this project is 11.0% of the cost of direct labor and overhead.

FOR YOUR INFORMATION

For questions on specific tasks, refer to the P/PMS Task Manual located on the MDOT Bulletin Board System.

For assistance in accessing this manual, please contact one of following:

Dennis Kelley: (517) 373-4614

Tonya Nobach: (517) 335-1927

ATTACHMENT A

MDOT WORK ZONE SAFETY AND MOBILITY POLICY

MDOT Michigan Department of Transportation	GUIDANCE DOCUMENT	IDENTIFIER	EFFECTIVE DATE
		10177	09/01/07
		SUPERSEDES	DATED
		New	08/24/07
RESPONSIBLE ORGANIZATION:	Highway Operations		
SUBJECT:	Work Zone Safety and Mobility Policy		

PURPOSE:

The State of Michigan transportation system is critical to supporting a vibrant economy by moving traffic and freight safely and efficiently. Growing congestion on many roads with an increased need to perform rehabilitation and reconstruction is resulting in complex challenges to maintain work zone safety and mobility. This policy is being established to improve safety and mobility in work zones by reducing congestion and traffic incidents.

This policy supports and is in accordance with federal regulation 23 CFR 630, Subpart J, referred to as the Work Zone Safety and Mobility Rule, which requires a policy for the systematic consideration and management of work zone impacts on all federal aid highway projects across all stages of project planning, development, delivery, and operations. This policy is in agreement with and does not supersede State Transportation Commission Policy 10015, dated September 25, 1996.

The process defined in this policy will apply to all state trunklines, regardless of the type of roadway or bridge facility, including freeway and nonfreeway facilities.

This policy applies to construction work zones, as well as maintenance and permitted activity work zones. Each type of work zone is to be analyzed in the same manner to provide consistency for travelers in Michigan.

EXECUTIVE SUMMARY:

Specific processes, procedures, and guidelines to support implementation of this policy are being developed and will be communicated and distributed through a Work Zone Mobility Manual. This manual will include the use of work zone safety and operational data, work zone training, and work zone process reviews. Project-level procedures to address the work zone impacts of individual projects will be part of this manual. Projects that exceed the mobility analysis thresholds will require the development and implementation of a transportation management plan. These projects are considered significant in that the sustained work zone impacts may be greater than what is considered tolerable based on this policy.

A transportation management plan (TMP) consists of three primary components: (1) a temporary traffic control plan that addresses traffic safety and control through the work zone, (2) transportation operations strategies that will be used to mitigate work zone impacts, and (3) public information strategies to inform those affected by the work zone impacts and the changing conditions. The appropriate TMP provisions and pay items are to be included within the plans, specifications, and project estimates. The TMP is to assign responsibility to those persons, both MDOT and the contractor, responsible to monitor the TMP and other safety and mobility aspects of the project. All MDOT employees must be committed to providing a high level of safety and mobility at

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each step of the project development and delivery process from concept and planning through construction and operations. All management staff is responsible for ensuring this policy is implemented, incorporated, and sustained for safe and efficient travel in Michigan.

Variations from this policy may be considered, evaluated, and incorporated into specific projects on a case-by-case basis with approval of the Region Engineer and the Chief Operations Officer.

MOBILITY ANALYSIS:

The following mobility analysis process will apply to all projects or activities to determine if mobility impacts need to be further reviewed, mitigated, or approved. This process is critical and is to be commenced during the planning/scoping phase.

Project staff, during the planning/scoping phase, will determine if a project is *nonsignificant* or *potentially significant* in relation to potential mobility impacts. Projects which are determined to be *nonsignificant* do not require an additional mobility analysis. The TMP for *nonsignificant* projects will contain, at a minimum, a temporary traffic control plan as described within this policy. A nonflagging operation project is to be considered *potentially significant* if any of the following apply:

A. Any project that occupies a specific location for more than three days with either intermittent or continuous lane closures.

B. Any project that alone or in combination with other nearby concurrent projects is anticipated to cause sustained work zone impacts that are greater than what is considered tolerable based on an assessment of work zone safety, mobility impacts (volume/capacity, travel time, level of service), and the possible level of mitigation of such impacts.

C. Any project defined as *potentially significant* or critical by region staff.

All *potentially significant* projects are to be further evaluated for potential mobility impacts to the transportation system by being reviewed against the following three critical evaluation items:

A. Volume to Capacity Ratio - The volume to capacity (V/C) ratio of the work zone design hour volume will be ascertained. This analysis is to be completed utilizing the work zone volume and capacity values during a representative time of the work zone activity. If the work zone V/C ratio is determined to be greater than 0.80, an in-depth TMP is required to be developed and implemented. Mitigation measures to reduce delay are to be designed into the project.

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B. Travel Time - The travel time delay is to be calculated for the work zone. If the work zone travel time delay is determined to be 10 minutes greater than the normal travel time, an in-depth TMP is required to be developed and implemented. Mitigation measures to reduce delay are to be designed into the project. Normal travel time should be determined utilizing the average speeds on the facility.

C. Level of Service - The level of service (LOS) is to be calculated for the work zone based on the proposed maintaining traffic conditions. If the LOS is determined to be level D or lower or level C is calculated and the existing facility currently operates at level A, an in-depth TMP is required to be developed and implemented. Mitigation measures to reduce delay are to be designed into the project.

Projects that exceed any one of the three critical evaluation item thresholds are considered *significant* and must have a project specific TMP developed and implemented. Mitigation measures to minimize travel delay are to be designed into the project.

A *potentially significant* project that does not exceed the thresholds listed above after completion of the mobility analysis is to be considered *nonsignificant* and only a temporary traffic control plan will be required in the TMP, as described within this policy.

Flagging operations are to be reviewed based upon a travel time delay evaluation. A flagging operation is considered to be *significant* if traffic is delayed by more than ten minutes. If delays greater than ten minutes are calculated, a TMP is required to be developed and implemented. Mitigation measures to reduce delay are to be designed into the project.

Variations from the above thresholds may be considered, evaluated, and incorporated into specific projects on a case-by-case basis, with approval of the Region Engineer and the Chief Operations Officer.

TRANSPORTATION MANAGEMENT PLAN (TMP):

A TMP provides strategies, elements, and details for managing project work zone safety and mobility impacts. A TMP is required on all *significant* projects and is to be commenced during the project planning/scoping phase. The TMP is intended to be dynamic and enhanced as a project progresses through the planning and design phases. Direct work zone impacts, alternative designs, alternative contracting methods, and other transportation management strategies should be evaluated to minimize safety and mobility impacts and these strategies should be documented in the TMP. The TMP will designate a trained staff person from MDOT (Project Engineer, Lead Project Technician, etc.) and the contractor who will have the responsibility for implementing the TMP and other safety and mobility aspects within the project. There are three major components to a TMP:

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A. Temporary Traffic Control Plan (TTCP) - The TTCP consists of the maintaining traffic plan sheets, detail sheets, maintaining traffic typicals, the Special Provision for Maintaining Traffic, and other direct components relating to the maintenance of traffic. TTCPs are also to include appropriate pay items for implementing the TMP and designated contract specifications for construction work zones. Maintenance and permitted activity work zones shall include the appropriate maintaining traffic details, work zone devices, and work requirements to properly address work zone safety and mobility impacts.

   Specific attention is to be focused on the initial implementation of temporary traffic control and all temporary traffic control changes during staged construction. These times are critical for safety and mobility in the work zone and should be planned accordingly.

B. Transportation Operations Plan (TOP) - The TOP includes strategies for operations and management of the work zone and facilities affected by the work zone, including all transportation modes, such as transit, roadway, freight, rail, air, and pedestrians. Proposed mitigation measures shall also be included in this plan. These strategies should include traffic incident management plans, planned special events, ITS components, maintaining or enhancing other modes of transportation, emergency service provider access and communication, work zone law enforcement, and other related strategies. The TOP is to include the proposed methodology for monitoring and measuring mobility during the active work zone phase.

C. Public Information Plan (PIP) - The PIP includes public/stakeholder information and communication strategies. The PIP will include strategies that will be commenced during the planning and design phases, as well as during construction or operations activities. These strategies may include public information meetings, project brochures, visor information cards, project Web sites, press releases, highway advisory radio (HAR) messages, messages on portable or permanent changeable message signs, and other related strategies.

The three subcomponents of a TMP are to be analyzed and developed into contractual language and project work items, where appropriate, during the planning and design phase. It is the intent of this policy that work zone impacts are planned, discussed, coordinated, and mitigated during the early phases of project development.

All projects which are determined to be *nonsignificant* will only require a TTCP as part of the TMP. A TOP and PIP for these projects is suggested, where appropriate, but are not required.

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Significant Project	*Nonsignificant Project*
Transportation Management Plan	Transportation Management Plan
- TTCP	- TTCP
- TOP	- TOP (Not Required)
- PIP	- PIP (Not Required)

MITIGATION PROCESSES AND TECHNIQUES:

Typically, work zone temporary traffic control devices represent 10 percent of the project cost and are utilized to maintain traffic through a work zone without primary regard to mobility. It is expected that this policy may result in an additional 10 to 15 percent of project costs for work zone temporary traffic control devices and measures which are necessary for safety and mobility mitigation and enhancement efforts.

Projects are subject to the review and approval of the Region Engineer and the Chief Operations Officer, when combined temporary traffic control and safety and mobility mitigation costs are expected to be above 25 percent of the project cost. This review and approval process will also apply for projects that cannot further mitigate safety and mobility issues.

The following mitigation strategies should be evaluated when the mobility analysis has been completed. This list is not exhaustive, but should be used as a reference:

A. Nighttime/weekend work requirements.
B. Incentive/disincentive for early completion or open to traffic dates.
C. Intelligent Transportation System (ITS) devices and strategies.
D. Lane/ramp rental provisions.
E. A+B contract provisions and completion dates.
F. “No Excuse” project completion/open to traffic dates.
G. Complete closure and detour of facility, including onto ramps.
H. Temporary or permanent widening to maintain traffic.
I. Temporary crossovers in lieu of part-width construction activities.
J. Restricted work hours (e.g., no work or lane closures from 4:00 to 6:00 p.m.).
K. Reduced length of work zone lane closures or impact area.
L. Movable barrier systems or contraflow activities.
M. Signal timing adjustments within the project work zone and/or alternate and detour routes.
N. Geometric improvements within the project limits or on alternate/detour routes (e.g., additional turn lanes, curb improvements, pavement markings).

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Project work zones must be considered in regard to the regional network and corridor impacts. A regional network is not necessarily the MDOT jurisdictional region, but the regional area of transportation influence (e.g., Rural Task Force, MPO, etc.) or transportation management area (urbanized area with a population of over 200,000). The network and corridor review is to include overlapping alternate or detour routes, adjacent construction projects, local agency construction projects, permitted activities, etc. This review is intended to reduce the work zone impacts to the traveling public each construction season.

Approved alternate routes should not be under construction, have active maintenance or permitted activity work zones, nor should there be any overlapping usage of alternate routes without an in-depth review of traffic operations. If impedances are discovered and cannot be eliminated, action is to be taken to minimize the impedance. This action can be accomplished with various techniques and may utilize any of the following initiatives:

A. Staggering adjacent project schedules.
B. Incentives and/or disincentives to enhance completion dates.
C. Staggering project work hours to minimize diverted traffic.

WORK ZONE MANAGEMENT:

Work zone management occurs during the construction, maintenance, or permitted activity work phase. TMP mitigation measures are to be implemented and engagement of project stakeholders is to occur. Work zone safety, mobility, and mitigation impacts are to be monitored and documented using field observations, crash data analysis, and other pertinent operational information.

Project staff is to be actively engaged with local/state law enforcement agencies and emergency service providers to assure open communications concerning incidents, mobility, etc. A safety and mobility peer team and process will be established to conduct field reviews of complex projects and/or those experiencing unexpected safety and mobility issues. The team will consist of statewide work zone administration personnel, safety administration staff, and traffic and safety personnel from a region external to the project. This team will provide guidance relative to improving safety and mobility within the work zone mobility. Where this policy states that specific projects will require review and approval by the Region Engineer and the Chief Operations Officer, such approval will not be granted until the safety and mobility peer team have reviewed these projects to ensure consistent statewide mobility treatments.

All *significant project* work zones shall be analyzed and measured for volume/capacity and level of service performance. In addition, actual traffic delays shall be measured. Work zones needing apparent performance improvements are to have practical mitigation actions implemented wherever possible. All potential

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improvements are to be documented as the documentation will be reviewed on a statewide basis. This documentation will provide the basis for future improvements to the mobility process.

WORK ZONE SAFETY:

In conjunction with mobility, the safety of both motorists and roadway workers is a high priority and will be monitored on each project. Safety aspects to be reviewed are work zone crashes, emergency communications, internal work zone traffic control (contractor egress/ingress points, etc.), and other safety factors in order to provide a safe work zone environment to conduct work operations and provide a safe and functional corridor through or around the work zone.

MOBILITY ANALYSIS TOOLS:

There are several programs, processes, and reference tools that may be used for mobility analysis during the planning and development phases. These tools include: Highway Capacity Software (HCS), MicroSimulation, Work Zone Capacity Worksheets, Portable Traffic Sensor Devices, Construction Congestion Costs (CO3) Software, Construction Analysis for Pavement Rehabilitation Strategies (CA4PRS) Software, MPO/Statewide Travel Demand Models, and QuickZone. Other tools may be utilized as deemed appropriate.

WORK ZONE SAFETY AND MOBILITY MANUAL:

Specific processes, procedures, and guidelines to support implementation of this policy are being developed and will be communicated and distributed through a Work Zone Safety and Mobility Manual. This manual will include the use of work zone safety and operational data, work zone training, and work zone process reviews. Project-level procedures to address the work zone impacts of individual projects will be a part of this manual.

LOCAL AGENCY FEDERAL AID PROGRAM:

MDOT will take all necessary actions to facilitate Final Work Zone Safety and Mobility Rule compliance on all local agency federal aid projects by January 1, 2009.

PHASED IMPLEMENTATION AND APPROVALS:

This policy will be effective on September 1, 2007, for all state trunkline work zones, and is to be implemented in phases as follows:

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A. Full implementation for all MDOT construction projects in the 2008 construction season, regardless of the development schedule.

B. January 1, 2008, full implementation for all state trunkline maintenance work zones.

C. January 1, 2009, full implementation for all state trunkline permitted activity work zones.

Approved: _____ Date: _____
Chief Operations Officer

Approved: _____ Date: _____
Director